[redacted] Maj Waller/jm [redacted]

VXVII

NOTE: On this report, Dr. Lippitt's hand-written copy was given to the TWX operator the night of the launch instead of a typewritten copy. This accounts for there being only (6) copies; usually there are (7). The next day I typed the official file cy and (5) courier cys and destroyed the original copy as classified waste. See Maj Waller on next report for instructions as to how it will go out.

[redacted]

CLASSIFICATION CHANGED TO [redacted]
BY AUTH OF AFR 205-2
8 APR 1966

[redacted]

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS
DOD DIR 5200.10

[redacted]

[redacted] 23 [redacted]
OCT 61

OFFICE SYMBOL	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
NAME (SIGNATURE)					
DATE	[redacted]		LUCIEN A. [redacted], JR., Colonel, USAF		

AFBMD Form 11
1 Nov 59

COORDINATION SHEET

Deputy for System Operations

Replaces AFBMD Form 11, 1 Jun 59

AIR FORCE BMD, Canton, Utah

[redacted]

[redacted]

[illegible] AND VANDENBERG AFB [illegible]

[illegible] FOR [illegible] FOR [illegible] LASC/

[illegible] FOR TWX [illegible] BRIGGS LASC/VAFB

FOR [illegible] DAC/VAFB FOR MR. [illegible]. INFO CLN

[illegible] FOR COMMAND POST AND SSD [illegible]

AFLADS/VAFB FOR MR. [illegible] FOR COL. [illegible]

[illegible] AFB FOR [illegible] APLC/WRIGHT

PATTERSON AFB FOR [illegible]. SUBJECT CLN FLASH REPORT ON THE

LAUNCHING OF DISCOVERER 33 / [illegible].

1. DISCOVERER 33 CONSISTING OF THOR BOOSTER NO. [illegible] AND AGENA B ORBITAL STAGE NO. [illegible] WAS LAUNCHED FROM VAFB COMPLEX 75-3 PAD 5 AT [illegible] PST ON 23 OCT 61. THE PRIMARY LAUNCH OBJECTIVE, TO PLACE THE DISCOVERER SATELLITE WITH PAYLOAD IN A NEAR-POLAR ORBIT, WAS NOT ACCOMPLISHED. THE RADAR TRACKING DATA SHOWED THAT AFTER AGENA IGNITION, THE TRAJECTORY DEVIATED UPWARD FROM THE [illegible]. A PEAK ALTITUDE OF OVER [illegible] STATUTE MILES WAS ATTAINED WITH A MAXIMUM VELOCITY NOT EXCEEDING 16,000 FEET PER SECOND. TELEMETRY DATA INDICATED THAT THERE WAS A FAILURE WITHIN THE FLIGHT CONTROL SYSTEM OF THE AGENA.

2. PRELIMINARY EVALUATION INDICATES THAT LAUNCH TEST

[redacted]

[redacted]

[redacted]

[illegible] APOGEE

[illegible] WERE PARTIALLY ACHIEVED AS FOLLOWS (GLN/REF. [illegible] TEST OBJECTIVES, LMSD-[illegible], SECTION V).

A. [illegible] BOOSTER - OBJECTIVE ACHIEVED.

AT BOOSTER CUTOFF, VEHICLE POSITION WAS WITHIN A [illegible] OF [illegible] RANGE. FLIGHT PATH ANGLE WAS WITHIN PLUS OR MINUS [illegible], AND VELOCITY WAS WITHIN [illegible] FPS OF THE NOMINAL VALUE. [illegible] STAGING AND EVENT COMMANDS WERE GENERATED AND TRANSMITTED SATISFACTORILY BY THE [illegible] GUIDANCE SYSTEM AND VEHICLE RESPONSE TO THE COMMANDS APPEARS TO HAVE BEEN PROPER. [illegible] OCCURRED AT T PLUS [illegible] SEC AS A RESULT OF COMMAND FROM GROUND GUIDANCE SYSTEM. VERNIER [illegible] SOLO OPERATION LASTED [illegible] SEC UNTIL [illegible] OCCURRED AT T PLUS [illegible] SEC. SEPARATION WAS INITIATED BY A GROUND GUIDANCE COMMAND AT T PLUS [illegible] SEC. GROUND GUIDANCE SYSTEM DATA INDICATE THE BOOSTER COAST APOGEE ALTITUDE WAS [illegible] NM (NOMINAL GLN [illegible] NM) AND THE BOOSTER COAST APOGEE VELOCITY WAS [illegible] FPS (NOMINAL GLN [illegible] FPS). THIS [illegible] WAS THE [illegible] BOOSTER TO BE EQUIPPED WITH A MODIFIED [illegible] IN AN ATTEMPT TO MINIMIZE THE LONGITUDINAL OSCILLATION [illegible]. [illegible] AND [illegible] [redacted]

[illegible] [redacted]

[redacted]

[redacted]

[redacted] VEHICLE

[redacted] THE ACTUAL VEHICLE STATES RESPONDED PROPERLY TO A 6.4 SEC STEP-TO-TURN DEFLECTION AND A 2.7 SEC VELOCITY - TO-ATTITUDE CORRECTION COMMANDED BY THE ONBOARD DIGITAL CONTROL. VEHICLE ATTITUDE APPEARS TO HAVE BEEN MAINTAINED AUTOMATICALLY DURING THE COAST PHASE. DURING THE BOOSTED PHASE THE REMARKABLE TRENDS INTENDED TO ALLEVIATE LATER, POSSIBLE, WIDER 6.4 SEC, IT HAD RESULTED IN AN ABNORMALLY LOW VALUE WHERE IT ENDED AT APPROXIMATELY 11 SECONDS. DURING THE INTERVAL OF LOW DAMPING [redacted], THE VEHICLE WAS VIOLENTLY [redacted] WHICH PLACE CAUSED A LOSS OF C[redacted] CONTROL, SUBSEQUENT TO RECEIPT OF RECORDED TELEMETRY AT THE RANGE, THE VEHICLE APPEARED STABLE IN ALL AXES, EXCEPT VEHICLE ROLLER MOVED ERRATIC. [redacted] WERE THEN PRIMARY DUE TO THE LOSS OF USE OF THE ROLLER BEING THE SPECIAL INSTABILITY. AFTER APPROXIMATELY 100 SECONDS OF BOOST CONTROL THE ERRATIC TENDENCY WAS ALLEVIATED AT 100 SEC AND WAS ACCOMPANIED BY COMPLETE LOSS OF CONTROL. [redacted] ANGULAR RATES WERE ATTAINED AND ABRUPTLY REVERTED BY A PRIMATURE FIRING [redacted] OF APPROXIMATELY NINE RATE OF CONTROL.

[redacted]

[redacted]

[redacted]

CONTINUES IN [illegible] AND SAFE

G&N MONITORING. THE D-TIMER PROPERLY CONTROLLED THE TIME AND SEQUENCE OF ALL PROGRAMMED EVENTS THAT WERE SCHEDULED TO OCCUR PRIOR TO LOSS OF TELEMETERED DATA AT T+[illegible].

F. APOLLO SPACE COMMUNICATIONS SYSTEM - OBJECTIVE ACHIEVED.

OPERATION OF THE ACQUISITION BEACON AND THE RADAR BEACON WAS SATISFACTORY. [illegible] TRACKED THE ACQUISITION BEACON FROM LIFTOFF TO T PLUS [illegible] SEC AND ACCURATELY TRACKED THE RADAR BEACON FROM LIFTOFF TO T PLUS [illegible] SEC. AT T PLUS [illegible] SEC, THE TIME OF TELEMETRY DATA LOSS, ALL TELEMETRY CHANNELS WERE OPERATING. AT THIS TIME THE ORBITAL TIMER WAS SET AT [illegible] SEC, IN THE [illegible] POSITION, IN THE [illegible] MODE, AND ALTERNATE RE-ENTRY [illegible] STATE. NO GROUND COMMANDS WERE SENT DURING THE ASCENT PHASE.

G. AEROSPACE GROUND EQUIPMENT - OBJECTIVE ACHIEVED.

BOOSTER AND ORBITAL STAGE CHECKOUT WAS SATISFACTORILY ACCOMPLISHED DURING THE PRE-LAUNCH COUNTDOWN BY THE AEROSPACE GROUND EQUIPMENT. A PROBLEM OCCURRED DURING TASK 6 WITH THE AIR-CONDITIONING ADJUSTMENT. THE [redacted]

[redacted]

[redacted]

[redacted] AIR CALL.

[redacted] THE PURPOSE OF THIS TWO PART OF SYSTEMS IS TO [redacted] OF THE [redacted] COMMUNICATIONS SYSTEMS. ANOTHER TECHNIQUE [redacted] OF THE TERMINAL COUNT WHEN [redacted] THE TERMINAL SIGNAL. [redacted] SIGNAL [redacted] THE [redacted] ALARM [redacted] OF THE [redacted] TELEMETRY [redacted] AUTHORIZED SIGNAL ATTENUATOR, [redacted] SIGNAL [redacted] AND SIGNAL.

[redacted] OBJECTIVE ACHIEVED.

[redacted] SIGNAL WAS RECEIVED AND [redacted] AT T PLUS 000 SEC AND FLIGHT DATA WERE RECEIVED FOR [redacted]. THE VIA VIOLENT RADAR TRACKED ANALOG AND SIGNAL DATA RECORDS FOR THE PERIOD FROM LIFTOFF TO LOSS OF ACTIVE TRACK AT T PLUS 000 SEC WITH A 30 SEC INTERMITTENT LOSS STARTING AT T PLUS 20 SEC. SYSTEM CONFIGURATIONS DURING THE LAUNCH OPERATION WERE ADEQUATE.

A. PRE-LAUNCH OBSERVATION.

[redacted] THE COUNTDOWN STARTED AT 000 HRS EST ON 28 OCT 61 AND PROCEEDED TO LIFTOFF WITH [redacted] HOLDS TOTALLING 30 MIN [redacted] OF WHICH [redacted] WITH TRACK.

[redacted]

[redacted]

VITRO

7 P.

[redacted]

[redacted] ARE CALM

[redacted] WAS CALLED AT [redacted] AND

[redacted] AT [redacted] AT

[redacted] AND LATER [redacted]

4. DAMAGE

DAMAGE TO THE AID STATION AND FACILITIES WAS NORMAL, AND THE REHABILITATION WORK IS EXPECTED TO BE SIMILAR TO THAT AFTER PREVIOUS LAUNCHES FROM THIS PAD. RECOVERY [redacted]

5. [redacted]

[redacted]

[redacted]

- Maj Walker/jm

XXVIII

UNCLASSIFIED

File
Walker

VWZD Official File Cy

[redacted]
[redacted]

[redacted] VANDENBERG AFB CALIF
AF [redacted] DOUGLAS AIRCRAFT CO SANTA MONICA CALIF

[redacted] WC /LOCKHEED/ SUNNYVALE CALIF

LOCKHEED MISSILES AND SPACE COMPANY SUNNYVALE CALIF

LOCKHEED MISSILES AND SPACE COMPANY VANDENBERG AFB CALIF/COURIER/ ZBH

DOUGLAS AIRCRAFT COMPANY VANDENBERG AFB CALIF /COURIER/ ZBH

INFO: RETARTARGETACHMT VANDENBERG AFB CALIF /COURIER/ZBH

DET 3 HQ AIR FORCE [redacted] COMMAND [redacted] GROUP VANDENBERG AFB CALIF /COURIER/ ZBH

[redacted] WC PATRICK AFB FLORIDA

HQ [redacted] HEADQUARTERS AIR MATERIEL AREA NORTON AFB CALIF

HQ AIR FORCE LOGISTICS COMMAND WRIGHT PATTERSON AFB OHIO

UNCLASSIFIED FROM VWZD, 25-10-715

25

OCT 48

OFFICE SYMBOL	ORIGINATOR				
NAME (SIGNATURE)	Walker				
DATE	[redacted] DRAF		LEGEND A. [redacted], Lt. Col., USAF Deputy for System Engineering		

AFBMD Form 1
1 Nov 59

COORDINATION SHEET

Replaces AFBMD Form 1T, 1 Jun 59

AIR FORCE, IDPS, Ogden, Utah

[redacted]

60 CQ8375 SUNV88D SUNV 880 VIA LMPC 7984
P 2523152
FM 6565TH TEST WG VANDENBERG AFB CALIF
TO SSD LOSA CALIF
6594TEST WG /SATELLITE/ SUNNYVALE CALIF
LMSC SUNNYVALE CALIF
LMSC VANDENBERG AFB CALIF
DOUGLAS ACFT CO VANDENBERG AFB CALIF
INFO 1STRATAD VANDENBERG AFB CALIF
DET 1 AFLC VANDENBERG AFB CALIF
6555TEST WG PATRICK AFB FLA
SBAMA NORTON AFB CALIF
AFLC WRIGHT PATTERSON AFB OHIO
BT
UNCLAS FROM VWZD-25-10-715. SSD FOR SSZD SEMCLN 6594TW FOR COL MOORE SEMCLN LMSC/SUNNYVALE FOR TWECA-3 /M.J. DRIEFUSS/ SEMCLN LMSC/VAFB FOR DEPT 65-44 SEMCLN DAC/VAFB FOR MR. HECKMAN. INFO CLN 1STRATAEROSPACE DIV FOR COMMAND POST AND DCO SEMCLN AFLCSC/VAFB FOR MR. YOUNG SEMCLN 6555TW FOR COL WIGNALL SEMCLN SBAMA/NORTON AFB FOR SBVP SEMCLN AFLC/ WRIGHT PATTERSON AFB FOR MCGO. SUBJECT CLN CORRECTION TO FLASH REPORT ON THE LAUNCHING OF DISCOVERER 33. REFERENCE SECRET TWX VWZD-23-10-186-S. DATED 23 OCT 61. CHANGE PARAGRAPH M.3 /PRELAUNCH COUNTDOWN/ TO READ CLN THE COUNTDOWN STARTED AT 0330 PST ON 23 OCT 61 AND PROGRESSED TO LIFTOFF WITH TWO HOLDS TOTALING 22 MIN. HOLD NO. 1 WAS FOR

[redacted]

HOLD NO. 2 WAS CALLED AT 1100 PST AT T MINUS 60 MIN AND LASTED FOR 19 MIN. HOLD NO. 2 OCCURRED AT 1204 PST AT T MINUS 15 MIN AND LASTED THREE MINUTES.
BT
2523152Z OCT 61 VAFB

OUT

DISPATCHED
25 OCT 1961
AFBMD
FLD OFC